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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/675,082	09/28/2000	Jonathan Sidney Edelson		3812

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Borealis Technical Limited
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EXAMINER

WAKS, JOSEPH

ART UNIT PAPER NUMBER

2834

DATE MAILED: 05/13/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/675,082

Applicant(s)

EDELSON, JONATHAN SIDNEY

Examiner

Joseph Waks

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- The MAILING DATE of this communication appears on the cover sheet with the correspondence address -
Period for Reply

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 September 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-221 is/are pending in the application.
- 4a) Of the above claim(s) 78-224 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-77 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 September 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Claims 78-221 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Groups II and III, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 4.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 11, 12, 13, 14, and 16. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: 1, 2, 3, and 4. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the control mechanism connected to mechanical load as recited in claim 1, the look-up tables as recited in claim 4, the variable mechanical advantage coupling as recited in claim 11, the variable displacement pump and the displacement adjuster as recited in claim 12, the direct current generator and the electronic converter having control over the own input voltage as recited in claim 15, the alternating current

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generator as recited in claim 16 and the electronic converter having control over the own input voltage as recited in claim 16, the alternating current generator and the electronic converter having control over the frequency as recited in claim 17, the alternating current synchronous externally excited generator and the electronic converter having control over the input voltage as recited in claim 18, the alternating current synchronous externally excited generator and the electronic converter having control over the frequency as recited in claim 19, the alternating current synchronous generator and the electronic converter having control over the frequency as recited in claim 20, the electronic converter having positive incremental resistance as recited in claim 21, the power electronic converter being a boost converter with a switching element having control over current/voltage relationship as recited in claim 25, the control mechanism comprising variable resistance as recited in claim 26, the control mechanism comprising variable resistance including one or more variable resistors as recited in claim 29, the control mechanism comprising variable resistance including a plurality of fixed resistors as recited in claim 30, the variable resistors comprising variable resistance heaters as recited in claim 31, the sensor as recited in claim 44, the rotary angle transducer as recited in claim 45, the piston position sensor as recited in claim 46, the brush commutated direct current generator as recited in claim 47, the boost and buck converter located between the generator and the energy storage as recited in claim 48, the converter and generator combination acting as an electronic flywheel as recited in claim 49, the receptor as described in claim 50, the generator being a brushless direct current motors modified with backdiodes as recited in claim 52 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

5. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The claim language is in general broad and disconnected from content of specification. For example: limitations like controllably adjustable torque requirement to effect a resultant speed of the rotating mechanical power as recited in claim 1, the controllably adjustable torque requirement as recited in claim 2, the input for receiving signals commanding a power magnitude requirements as recited in claim 3 or look-up tables as recited in claim 4, the variable mechanical advantage coupling as recited in claim 11, the variable displacement pump, the displacement adjuster as recited in claim 12, the sensor as recited in claim 44, the rotary angle transducer as recited in claim 45, the piston position sensor as recited in claim 46, the boost and buck converter located between the generator and the energy storage as recited in claim 48, the converter and generator combination acting as an electronic flywheel as recited in claim 49, the receptor as described in claim 50, the generator being a brushless direct current motors modified with backdiodes as recited in claim 52 are not described or addressed in clear and concise form in the specification.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it

pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. **Claims 1-77** are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The control mechanism connected to the mechanical load and comprising control over a controllably adjustable torque requirement, the look-up tables are, the ideal torque requirement, the variable mechanical advantage coupling, the variable displacement pump, the displacement adjuster as recited in claim 12, the sensor as recited in claim 44, the rotary angle transducer as recited in claim 45, the piston position sensor as recited in claim 46, the boost and buck converter located between the generator and the energy storage as recited in claim 48, the converter and generator combination acting as an electronic flywheel as recited in claim 49, the receptor as described in claim 50, the generator being a brushless direct current motors modified with backdiodes as recited in claim 52 are not shown in the drawings and not described in the specification.

8. **Claims 1-77** are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. For the reasons described above one skilled in the art would not be able to make and/or use the invention.

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. **Claims 1-77** are rejected as failing to define the invention in the manner required by 35 U.S.C. 112, second paragraph.

The claim(s) are narrative in form and replete with indefinite and functional or operational language. The structure which goes to make up the device must be clearly and positively specified. The structure must be organized and correlated in such a manner as to present a complete operative device.

11. **Claims 1-77** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are narrative in form and replete with indefinite and functional or operational language. For example:

In claim 1, line 2, "said prime mover", line 7, "the controllably adjustable torque" and lines 9-10, "the prime mover output" lack antecedent basis, line 3, "rotating mechanical power" should be --a rotating mechanical power--, and line 9, "associated change of magnitude of mechanical power" is vague and indefinite.

In claim 2, line 1, "said primary mover", and line 5, "said control over the controllably adjustable torque" lack antecedent basis, line 2, "its output torque", lines 2-3, and 4, "vice versa", line 3, "whose power output" and "its speed", line 4, "externally increased torque", line 5, "said control over the controllably adjustable torque".

Please make the correction in all claims to alleviate the indefinite and functional/operational language.

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12. The term "ideal" in claims 4 and 5 is a relative term which renders the claim indefinite. The term "ideal" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

14. **Claims 1-3, 13, 14** are rejected under 35 U.S.C. 102(b) as being anticipated by **Hubler** (US 5,311,063).

Hubler discloses a prime mover output control system comprising a mechanical load 18 connected to a prime mover, a control mechanism 20 connected to the mechanical load and comprising control over the controllably adjustable torque requirement to change the speed of the rotating mechanical power.

15. **Claims 1-11, 13-43, 47, 54-58, 60-64, 72**, are rejected under 35 U.S.C. 102(b) as being anticipated by **Maekawa** (US 5,703,410).

Maekawa discloses a prime mover output control system comprising a mechanical load in form of a generator 7 connected to a prime mover 6, a control mechanism 3 connected to the mechanical load and comprising control over the controllably adjustable torque requirement to change the speed of the rotating mechanical power, and a calculator 14 comprising data related

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to torque requirement/prime mover power output relationships, a battery (Re column 2, lines 56-57).

Prior Art

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Communication

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Waks whose telephone number is (703) 308-1676. The examiner can normally be reached on Monday through Thursday 8 am to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor R Ramirez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-1341 for regular communications and (703) 305-1341 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.


JOSEPH WAKS
PRIMARY PATENT EXAMINER
TC-2800

JW
May 9, 2002